

DropBooks

EXAMINATION, DIAGNOSIS AND TREATMENT PLANNING

INTRODUCTION

× Examination

- Is an investigation for the purpose of making a diagnosis.

× Diagnosis

- Is the determination of the nature of the disease.

× Treatment planning

- Is the general diagnostic findings that influence overall prosthetic treatment.

OBJECTIVES

- ✖ Evaluate condition of the oral tissues
- ✖ General health assessment
- ✖ Evaluate psychological condition
- ✖ Detect any treatment difficulties
- ✖ Estimate cost and time

History taking

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graph TD; A[History taking] --> B[Clinical examination]; B --> C[Diagnostic aids]; C --> D[Pre-extraction records]; D --> E[Treatment plan];
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Clinical examination

Diagnostic aids

Pre-extraction records

Treatment plan

Diagnosis and treatment plan

HISTORY

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History

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graph TD; History[History] --- Personal[Personal data]; History --- Medical[Medical history]; History --- Dental[Dental history]; History --- Observation[Patient observation]; History --- Attitude[Mental attitude];
```

Personal
data

Medical
history

Dental
history

Patient
observation

Mental attitude

Personal data

PERSONAL DATA

- × Name, address and telephone number



Positive identification and
communication



PERSONAL DATA

× Age

- + Geriatric dentistry is concerned with multiple changes occurred with age that could affect treatment (e.g. Prosthetic treatment)
- + Younger patient is more concerned with esthetics
- + Age of the patient influenced teeth selection.



PERSONAL DATA

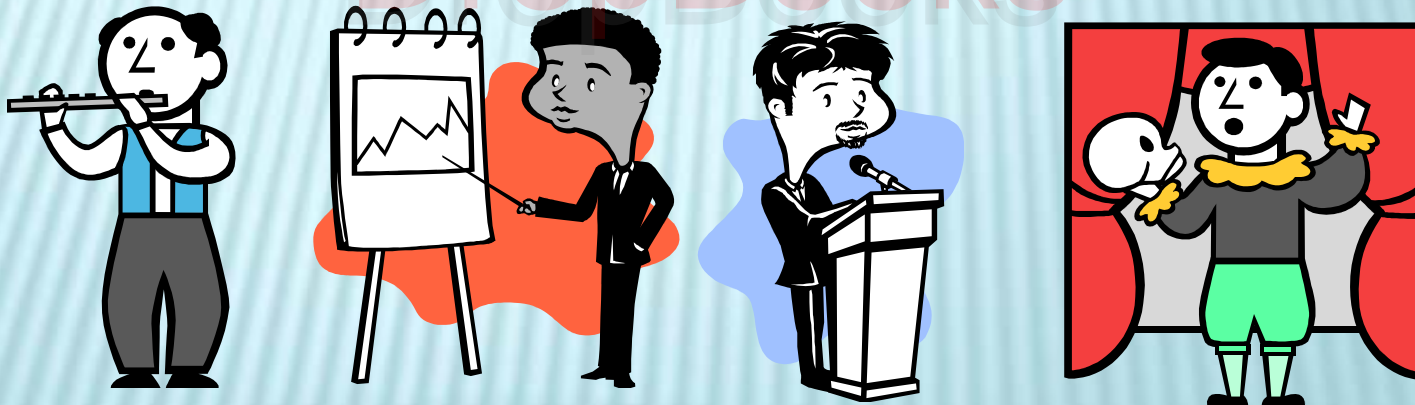
× Sex

- + Males are more interested with function, they are also more busy.
- + Females are more interested with esthetics
- + Menopause is usually associated with burning mouth.

PERSONAL DATA

× Occupation

- + Whenever phonetics and maximum retention needed, some professions may require special concern during complete denture construction



PERSONAL DATA

- × Reason for seeking new denture
 - + At this stage the patient should be asked about the reason for demanding denture
 - × Damage of the denture
 - × Esthetic of the denture
 - × Loosing proper function
 - × Pain during function



PATIENT OBSERVATION

- × *General appearance*

- + It is a good indicator for esthetic concern
- + General development of facial muscles

- × *Complexion*

- × Hair and eye color → helpful in teeth selection

- × *Pallor*

- × Indication for systemic disease or lack of nourishment

- × *Ruddy*

- × Polycythemia, neoplasm chronic alcoholism

PATIENT OBSERVATION

- × Bronzy skin

 - + Addison's disease or radiotherapy

- × Cyanosis

 - + Heart or lung disease

- × Lemon yellow

 - + Jaundice

- × Voice

 - + Hypernasality → soft palate problems

PATIENT OBSERVATION

- × Breathing pattern

 - + Wheezing —→ emphyzema or bronchial infection

- × Bad oral smell (halitosis)

 - × Oral hygiene
 - × Soft tissue lesion
 - × Heavy smoking
 - × Highly flavored diet
 - × Respiratory disease
 - × GIT problems

philosophic

Exacting

Mental
attitude

Hysterical

Indifferent

● *Hysterical Patients* (Panic-stricken)

Unstable- Excitable ——— Poor
prognosis

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● *Indifferent Patients* (Uncaring, cool)

Uninterested- depressed- no
cooperation-unfavorable prognosis

● *Philosophical Patients* (Truth-seeking)

Best mental attitude-Definite- incentive-
thoughtful - Learns to adjust rapidly- Clear-cut -
kind-caring — ~~Good~~ → prognosis

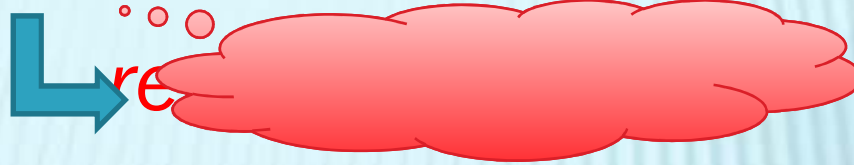
● *Exacting Patients* (Demanding)

Good as philosophical- needs great ~~care~~ →, effort
& explanations- tough Good prognosis

Dental history

DENTAL HISTORY

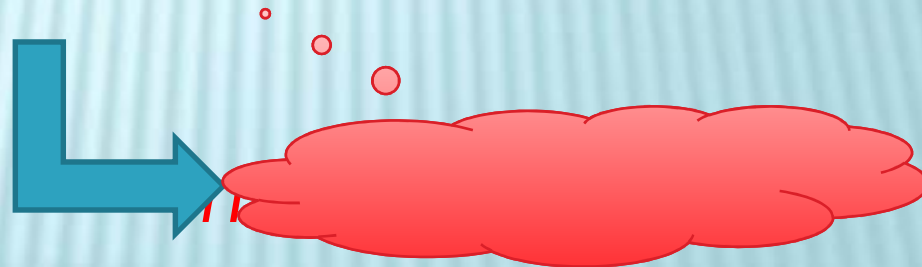
- × History of difficult extraction



- × Reasons of teeth loss



- × Retained anteriors for long time



DENTAL HISTORY

✕ Denture history

- + Denture servicing time
- + Number of denture sets patient receive
- + Success of previous dentures
- + Patient attitude toward denture
- + Existing denture problem
 - ✕ Over-extension
 - ✕ Midline fracture
 - ✕ Vertical dimension reduction



Medical history

MEDICAL HISTORY

Some dangerous transmissible diseases	Some systemic diseases might affect the outline of treatment	Some other transmissible diseases but not dangerous	Some drugs might affect the outline of treatment
<ul style="list-style-type: none">1) Jaundice2) AIDS3) TB	<ul style="list-style-type: none">1) Cardiac patients2) Diabetes3) Osteoporosis4) Osteoarthritis5) Hormonal disorder6) Neurologic disorder7) Skin disease	<ul style="list-style-type: none">1) Influenza2) Rhinitis3) Bronchitis	<ul style="list-style-type: none">1) Anticoagulants2) Dilantin Na3) Meduretics4) Antihypertensive drugs5) Endocrine therapy6) Saliva inhibiting drugs

Diagnosis and treatment plan

CLINICAL EXAMINATION

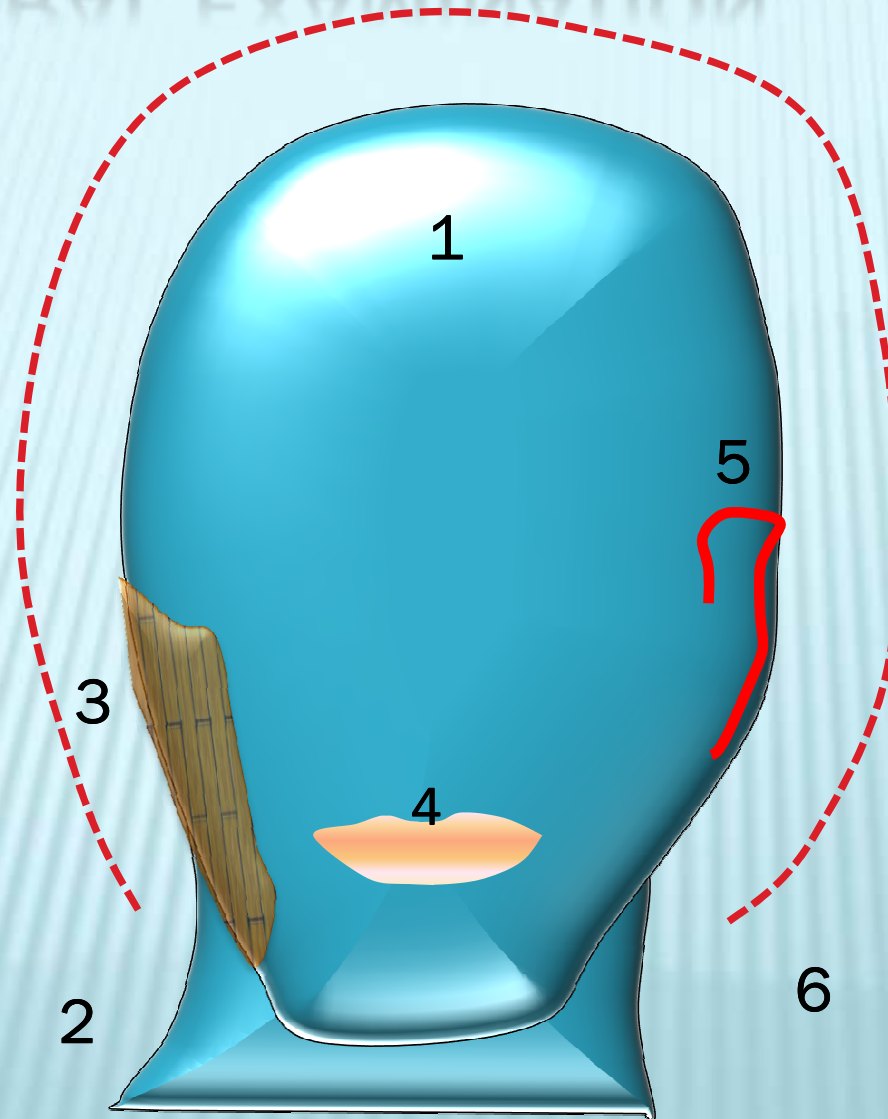
1

- Extra-oral examination

2

- Intra-oral examination

EXTRA-ORAL EXAMINATION



EXTRA-ORAL EXAMINATION

- × Head → detect asymmetry
- × Neck → palpable lymph nodes
- × Muscle tone → flaccid weak muscle may indicate impaired mandibular control



EXTRA-ORAL EXAMINATION

× Lip

- +Lip thickness
- +Lip length
- +Lip fullness
- +Microstomia
- +Tight lip

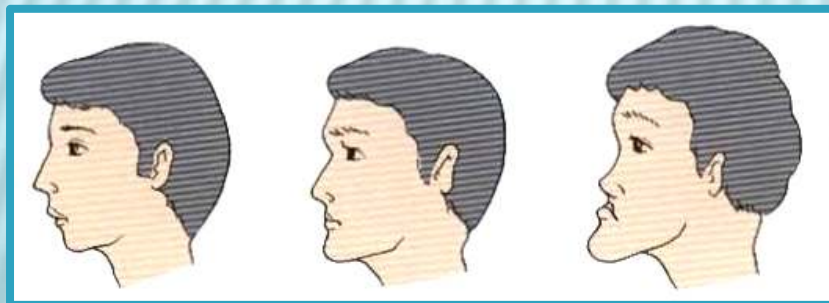
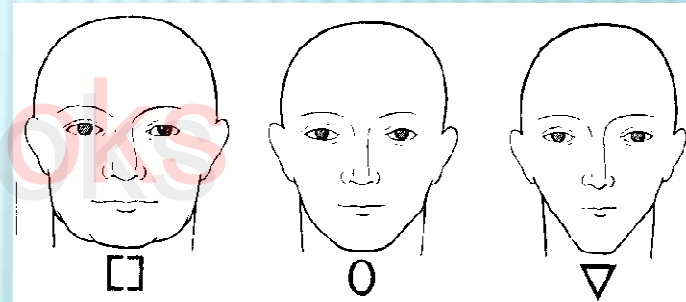
EXTRA-ORAL EXAMINATION

- ✖ Temporo mandibular joint
- ✖ Face

- + Outline (ovoid, rectangular, tapered)

- + Profile (class I, II, III)

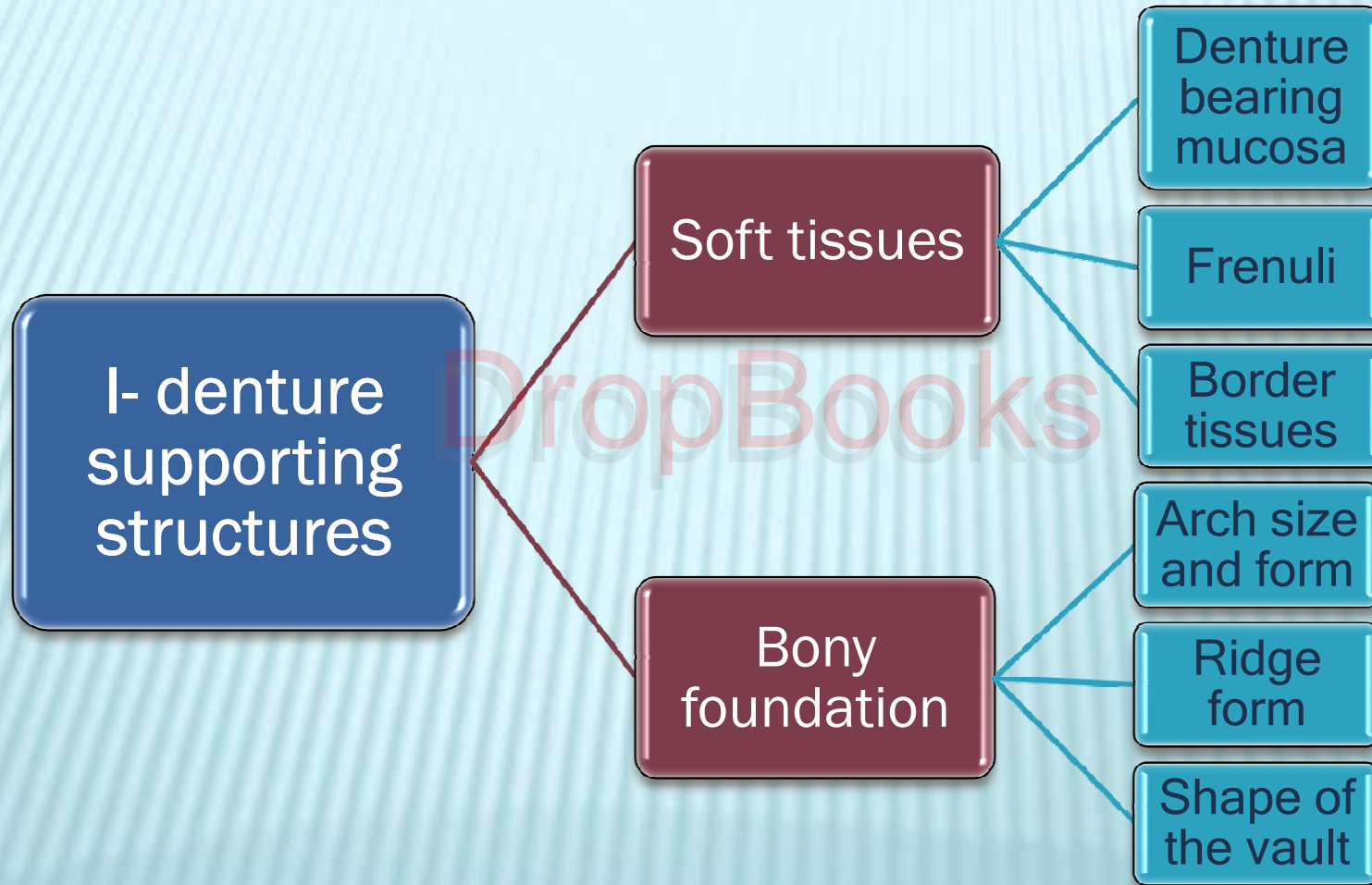
- + Angular chilitis





Intra-oral Examination

INTRA-ORAL EXAMINATION



Soft Tissues

A- Denture Bearing Mucosa

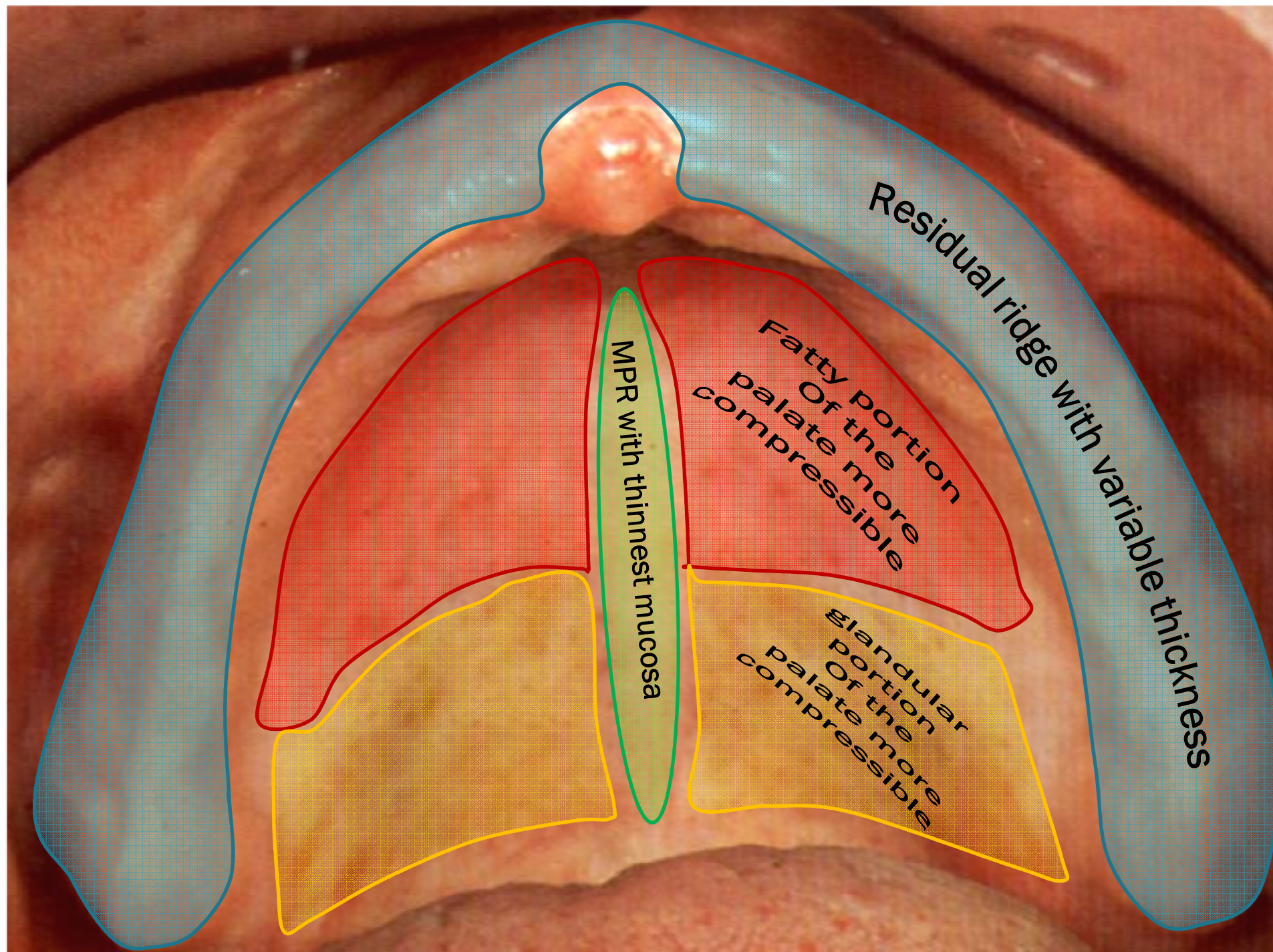
Ideal Mucosa

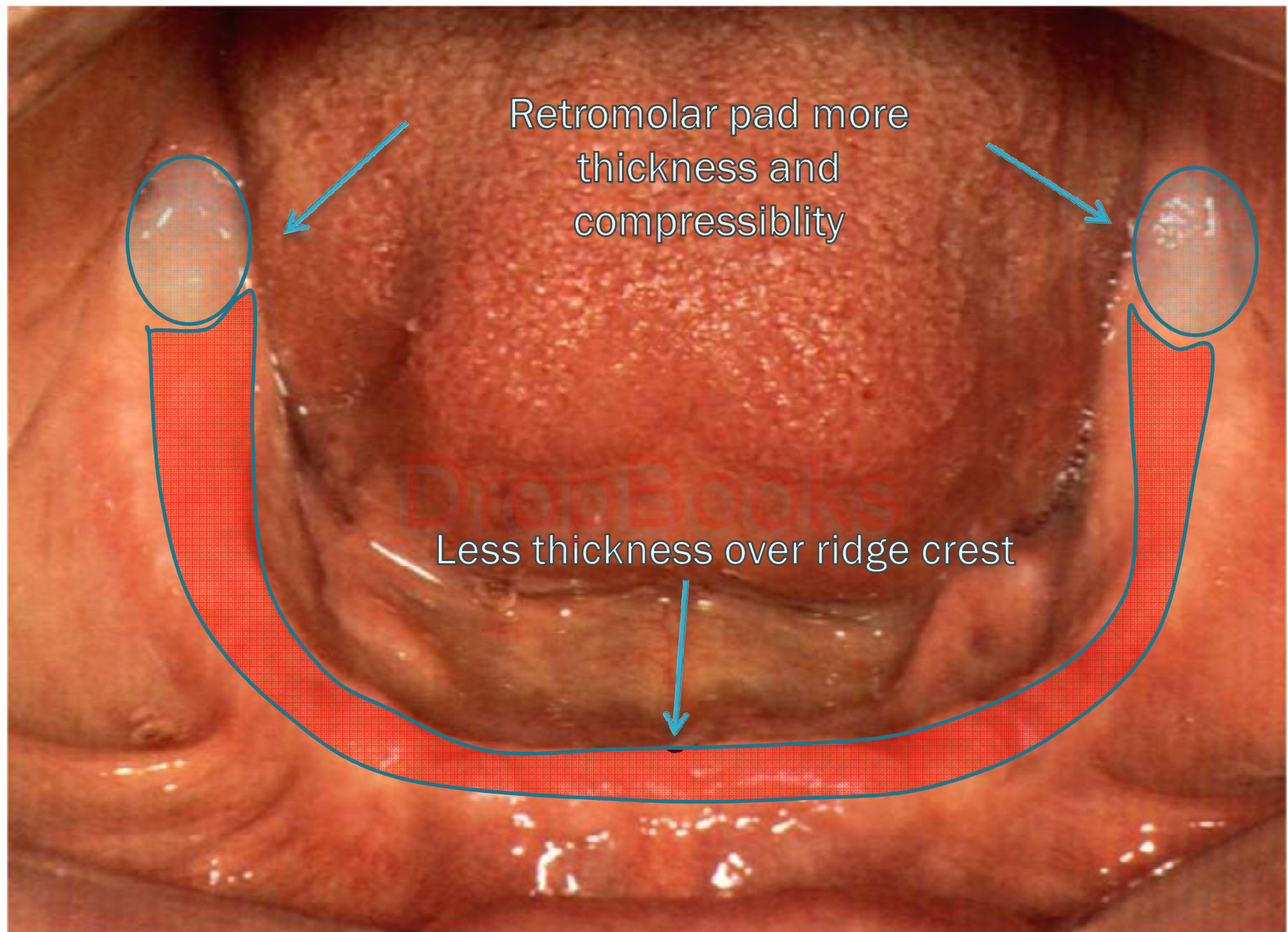
- ✓ Firmly Bound To Bone
- ✓ Slightly Compressible
- ✓ Of Even Thickness



Enhance stability and retention of the denture and act as a cushion for masticatory forces



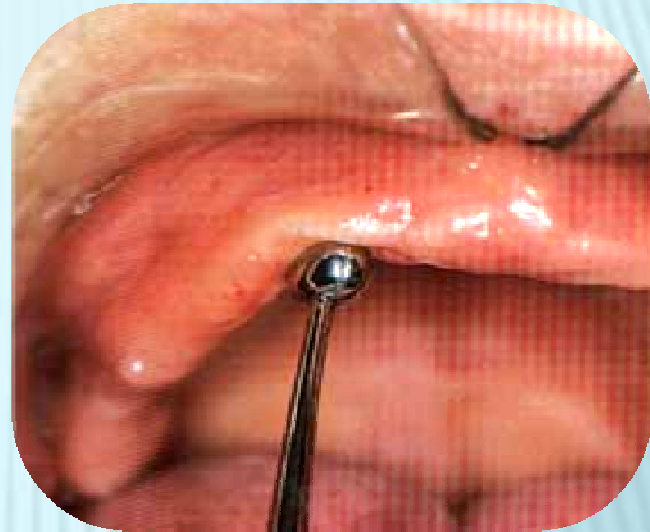




Retromolar pad more
thickness and
compressibility

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Less thickness over ridge crest

During palpation healthy mucosa should revealed 1-2 mm thickness displaceable



- Abused tissues in the form of flabby tissues may be localized or represent all residual ridge.
- That may require conservative program or surgical intervention



B- BORDER TISSUES

- ✖ Slightly displaceable tissue needed for proper retention.
- ✖ Detect tissue hypertrophy at the sulcus (epulis fissuratum).
- ✖ Avoid over-extension at area of root of zygoma



C- FRENULI

- ✖ Broad frenum near crest of the ridge may require (frenectomy) ?

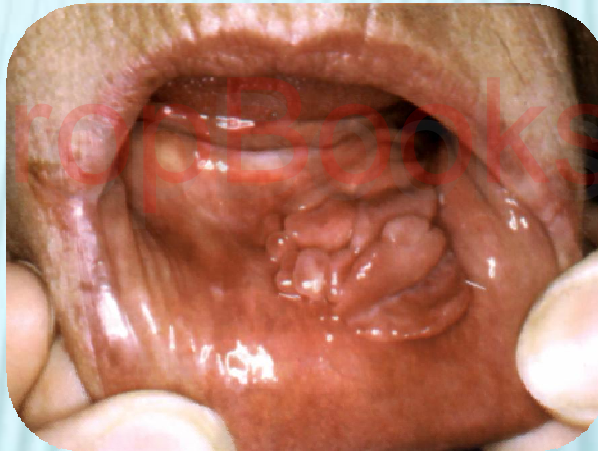


D- ABNORMAL SOFT TISSUES

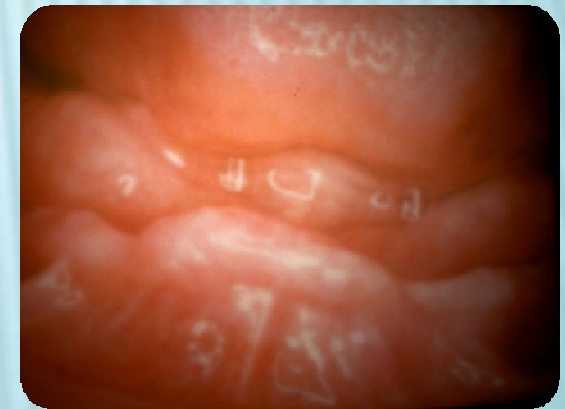
- ✖ Ill fitting denture may cause chronic irritation



Papillary hyperplasia



Epulis fissuratum



Flabby ridge

ABNORMAL SOFT TISSUE

- ✖ Abnormal white lesion
hard and fissured
- ✖ Mainly at the margin of
the tongue and anterior
part of the floor of the
mouth.



Squamous cell carcinoma



ABNORMAL SOFT TISSUES

× When body defense compromised

- + Denture irritation
- + Xerostomia
- + Physical debilitation
- + Antibiotic therapy
- + Chemotherapy
- + Radiotherapy
- + Immuno suppressive drugs



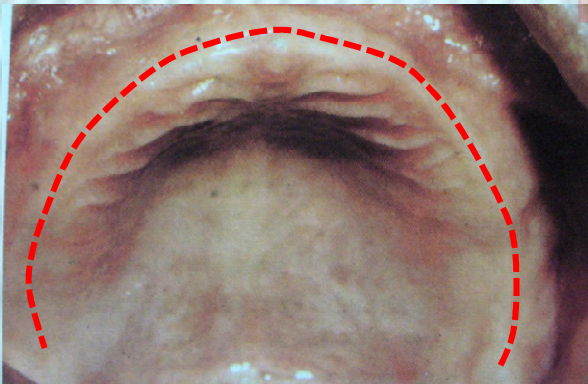
candidiasis



Bony Foundation

A- ARCH SIZE & FORM

- × Increase in **Arch size** → more surface area
→ more support, retention and stability.
- × Arch form classified into 3 categories



ovoid



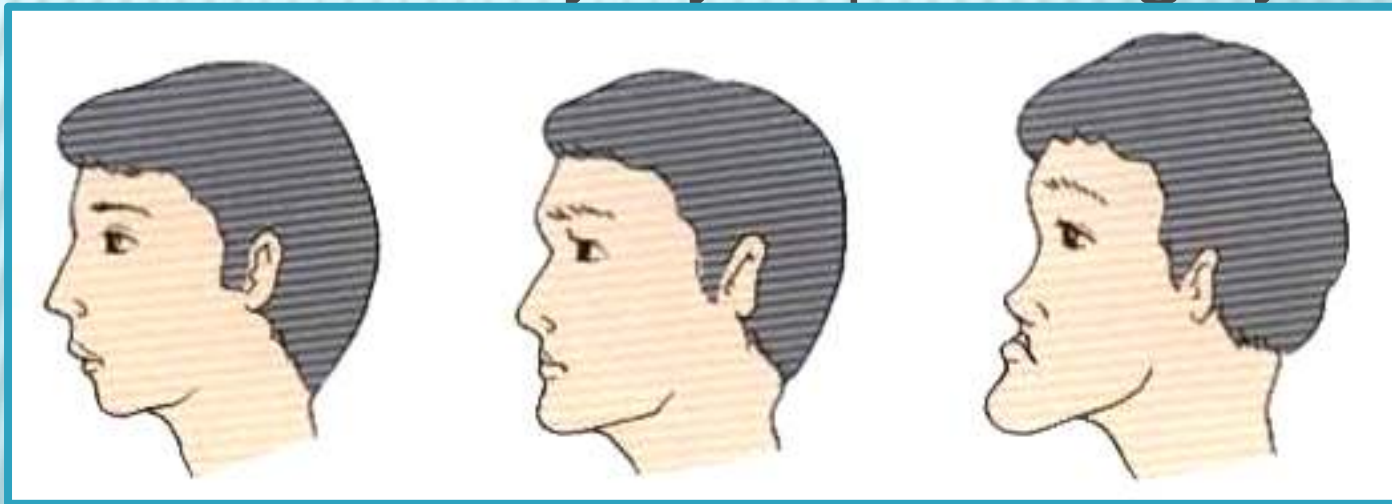
tapered



square

B- RIDGE RELATIONSHIP

- ✖ The relation between maxilla and mandible is considerably affect prognosis, arrangement of teeth will need special consideration
- ✖ Sever disharmony my require surgery



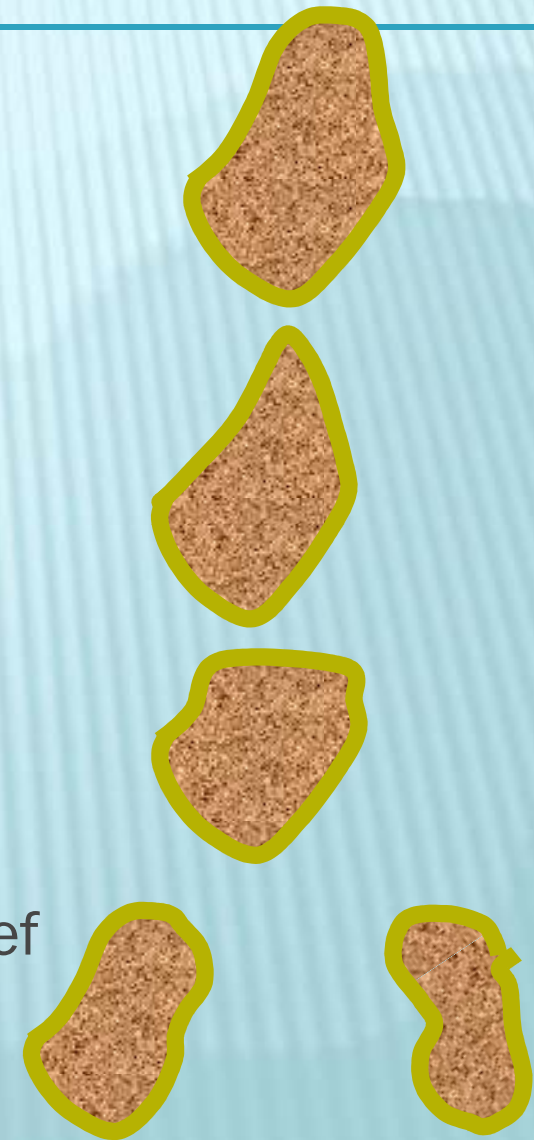
Class I

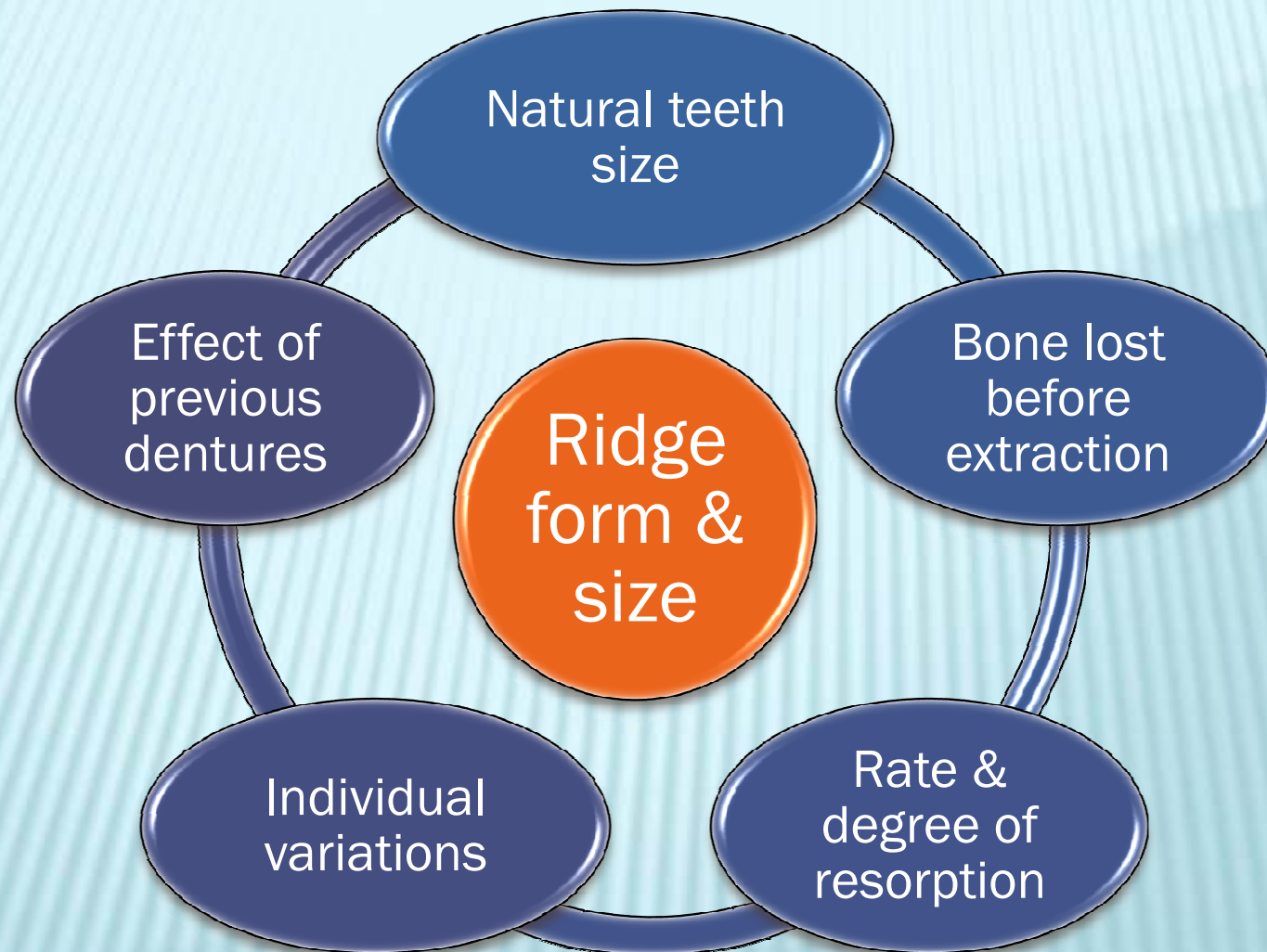
class II

class III

C- RIDGE FORM

- × **U-shaped ridge** form is the most favorable as it provide maximum support and stability
- × **Knife edge ridge** is less favorable and require special impression technique
- × **Flat severely resorbed ridges** lack stability and require special management
- × Ridges with **multiple undercuts** require relief or surgical removal

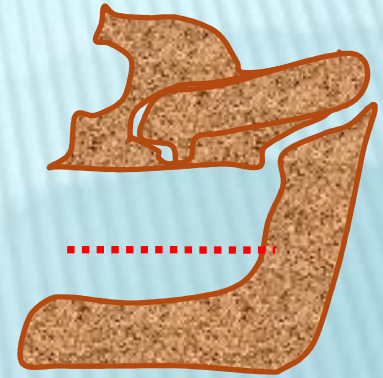




D- INTER-RIDGE SPACE

- ✖ Increased inter-ridge space has poor prognosis due to leverage
lack stability so occlusal plane more close to the lower arch
- ✖ Inadequate inter-ridge space form some difficulty especially during teeth arrangement

acrylic teeth



E- SHAPE OF THE VAULT

U-shaped



V-shaped



Flat-shaped



SUPPORT



RETENTION



STABILITY



Tongue & Floor Of The Mouth

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TONGUE AND FLOOR OF THE MOUTH

- × Broad thick tongue extend to cover the floor of the mouth and moved with normal speed during function.
- × Tongue size
 - + Small narrow tongue —→ easier prosthetic procedures but impaired peripheral seal and retention
 - + Large thick tongue —→ difficulty during prosthetic procedures but better peripheral seal

× Tongue position

- + Retruded tongue position → losing peripheral seal
- + Low tongue position in relation to the ridge crest also impair retention

× Tongue movement

- + Fast or slow tongue affect the lingual flange as it affect border molding

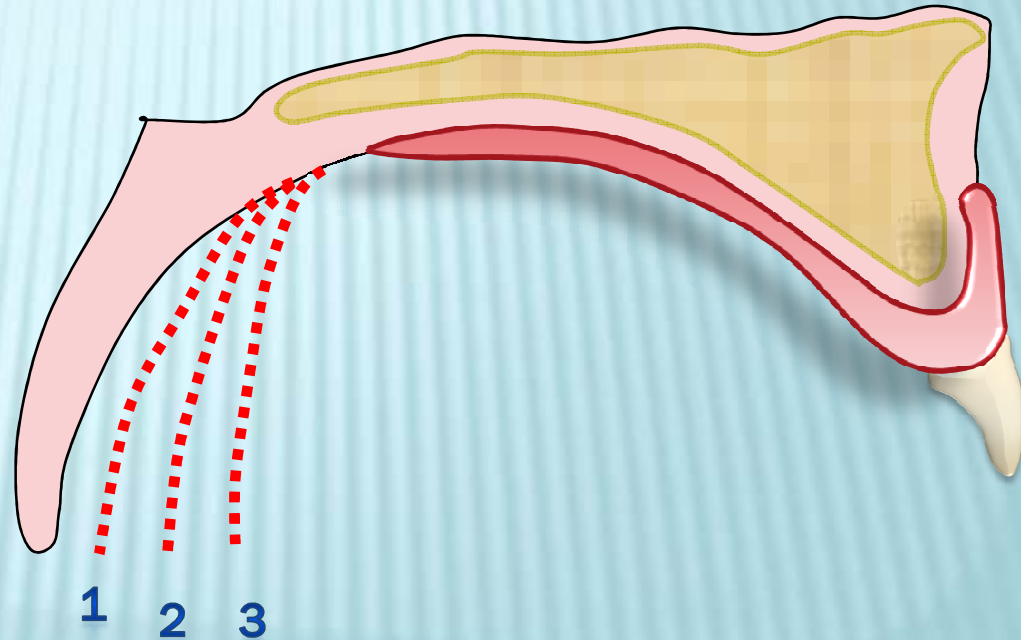
× Floor of the mouth should also inspected for movement position and areas of rigidity.

SOFT PALATE

CLASS 1: slight curvature, broad post dam and better retention

CLASS 2: medium curvature, moderate post dam and moderate retention

CLASS 3: abruptly curved so narrow post dam and poor retention



SALIVA

- × *Serous saliva* with normal amount is the best medium for denture retention
- × Quantity and quality of saliva is inspected
- × *Xerostomia* affect retention with soft tissue stick to the denture
- × *Thick ropy* saliva → decrease retention, affect impressions and induce gag.
- × *Thin watery* saliva → affect seal and so decrease retention

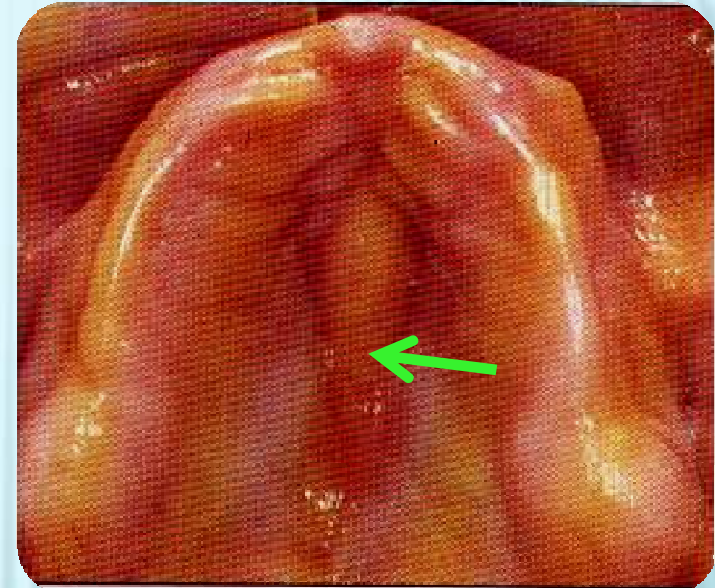


INTERFERING FACTORS

× Tori

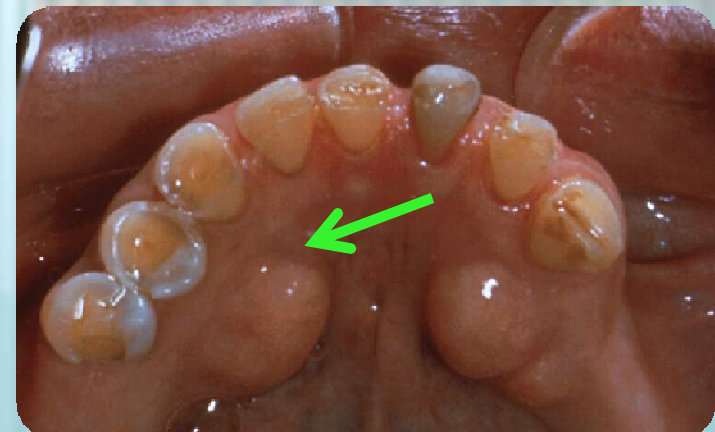
+ Torus palatinus

In the midline of the palate



+ Torus mandibularis

In the lingual side of the premolar area

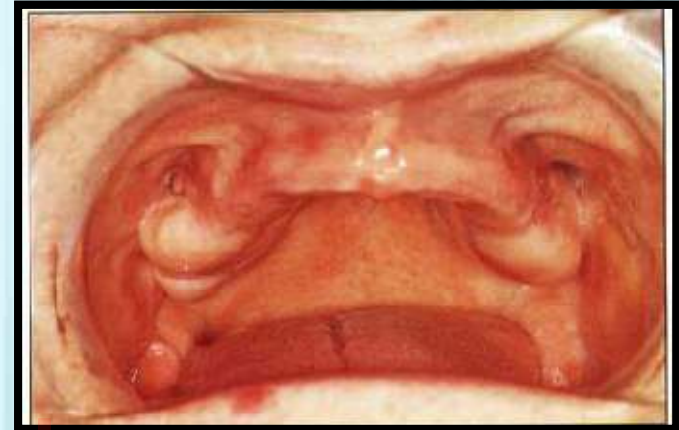


They require relief or surgical removal

INTERFERING FACTORS

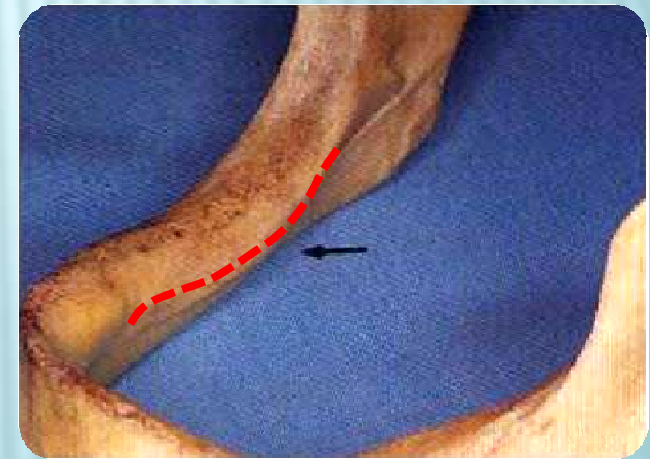
✖ Undercuts

- + Multiple undercuts interfere with denture seating and removal so they may require relief or surgically removed



INTERFERING FACTORS

- × Irregularities of the alveolar ridge
 - + Sharp bony specules or hard nodules palpated may either relieved or corrected surgically.
- × Mylohyoid ridges
 - + At lingual side of the 2nd & 3rd molar teeth. if they are sharp they may require relief



INTERFERING FACTORS

- × Sinuses and fistulas

- + Any infected area from remaining roots or bone chips should be noted for further radiographic examination.

- × Painful areas

- + Palpation of the mucous membrane may show some painful areas which should be treated before prosthetic treatment

INTERFERING FACTORS

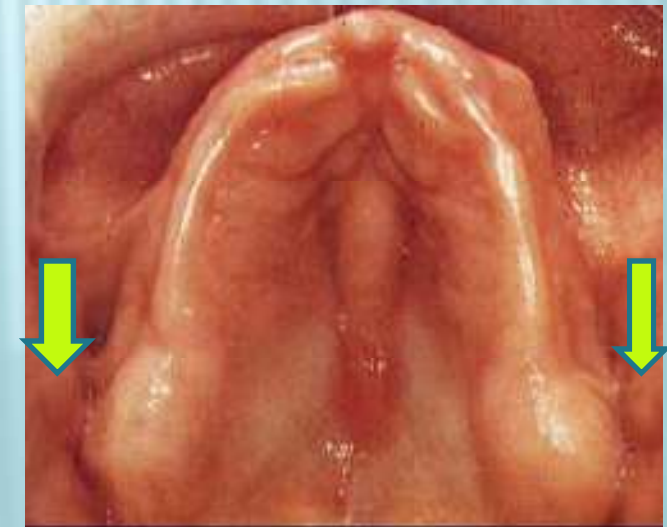
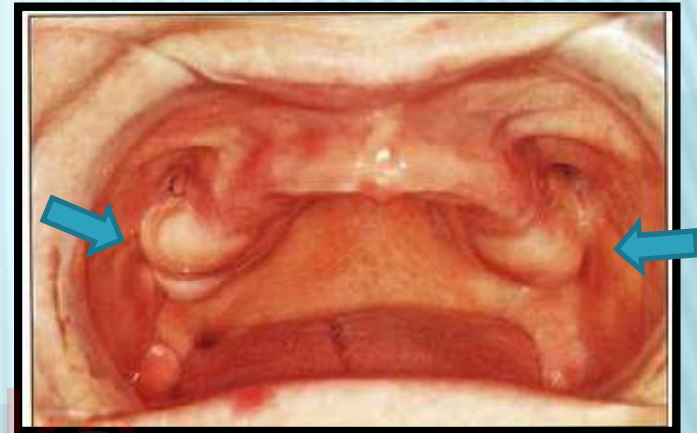
× Gag reflex

- + This is a normal defense mechanism evoked by vagus nerve which is triggered at certain areas in the oral cavity.
- + Certain measures could be taken to avoid gagging during prosthetic treatment
- + Some patients may have gagging of psychological or systemic factor.

INTERFERING FACTORS

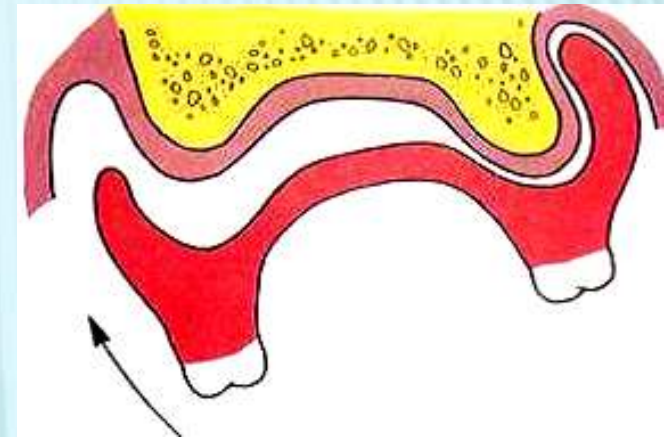
✖ Maxillary tuberosity

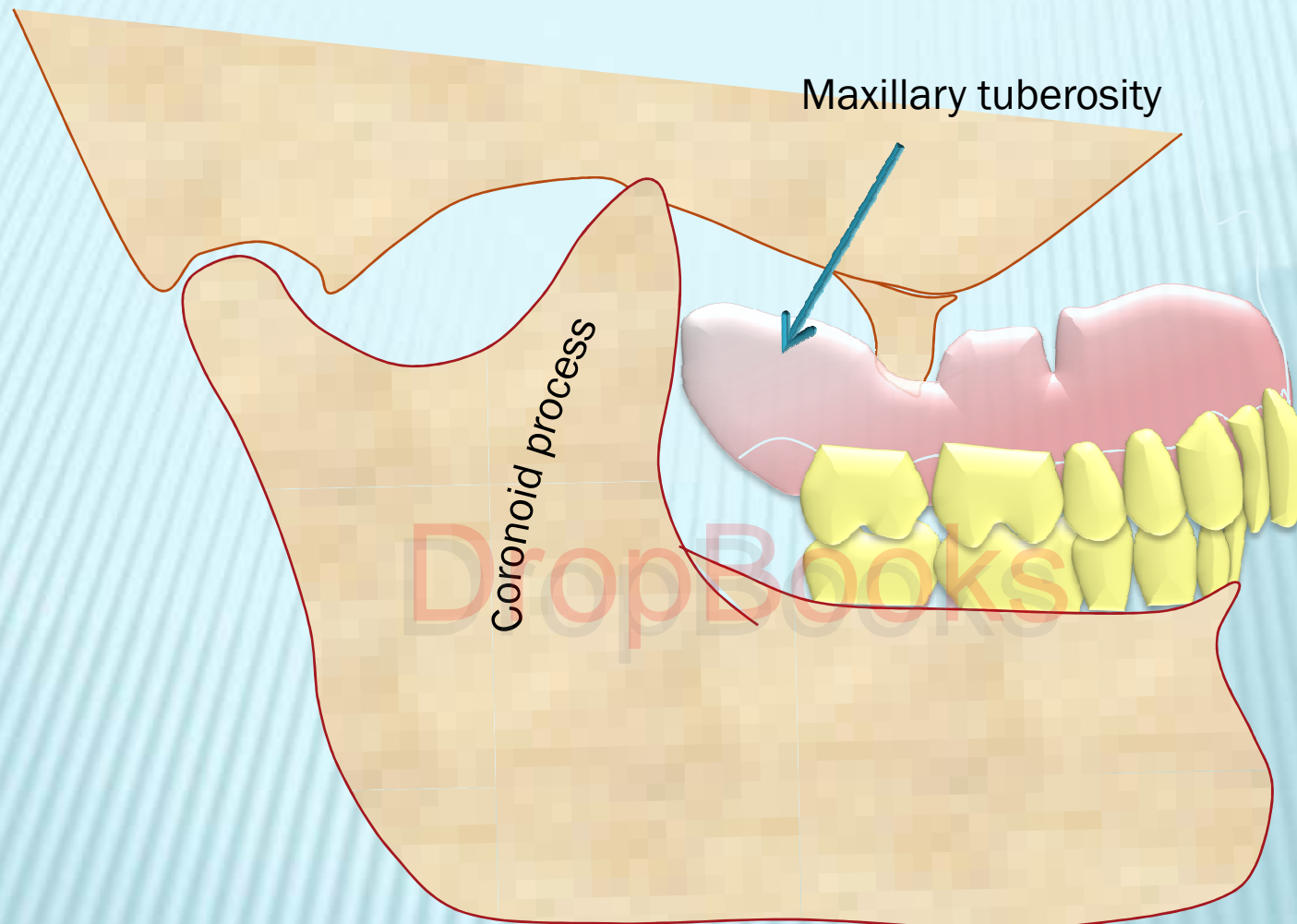
- + If large undercuts are present ***bilaterally***, one of them should be surgically eliminated.
- + If large bilateral undercuts with another one labially, the two opposing undercuts in the tuberosity areas removed



× Maxillary tuberosity

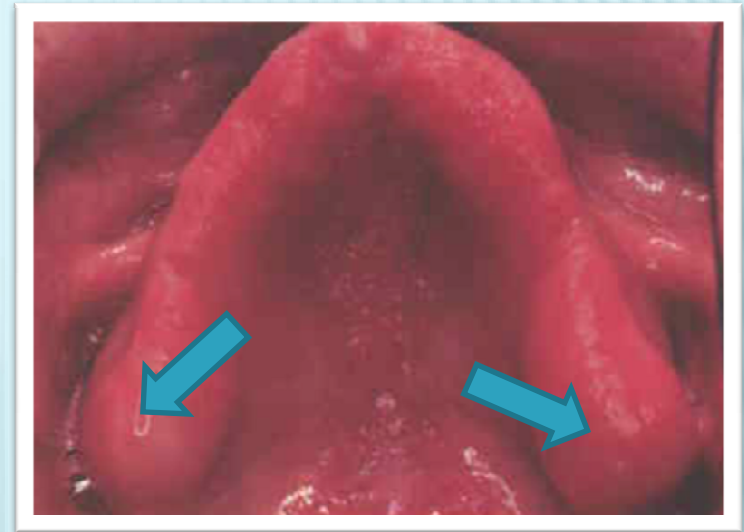
- + A *unilateral* undercut can be avoided by inserting and removing the denture in a rotating path. This enhances the denture retention
- + A large unilateral tuberosity may induce resistance the coronoid process so surgically corrected.

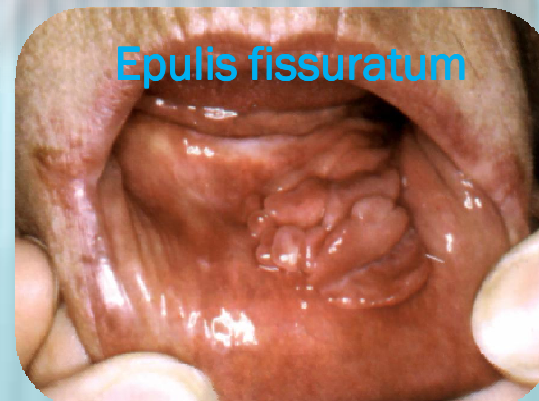
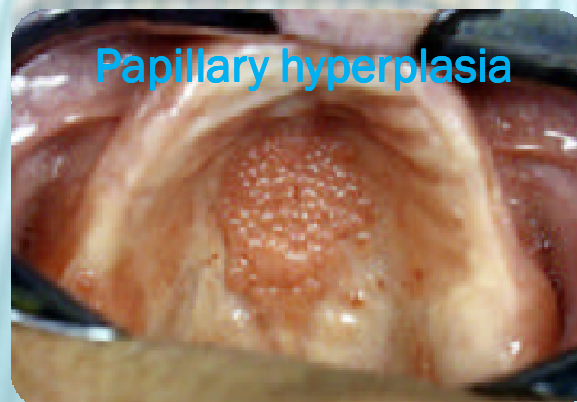
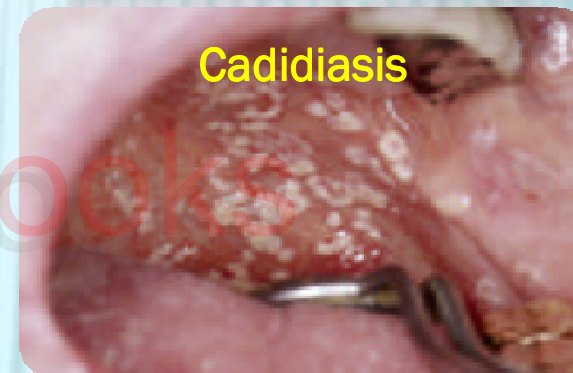
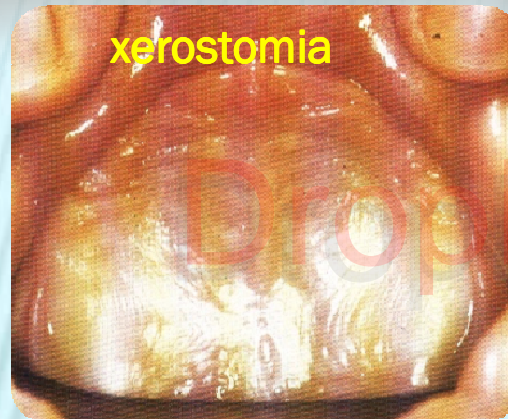
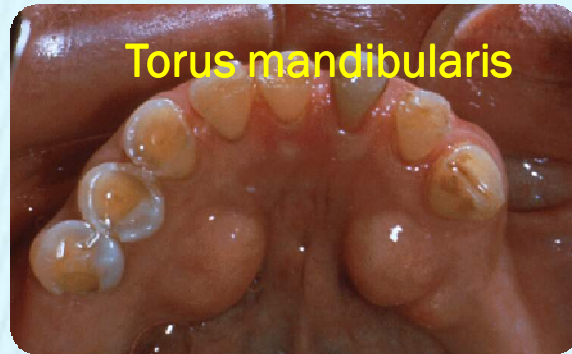




× Maxillary tuberosity

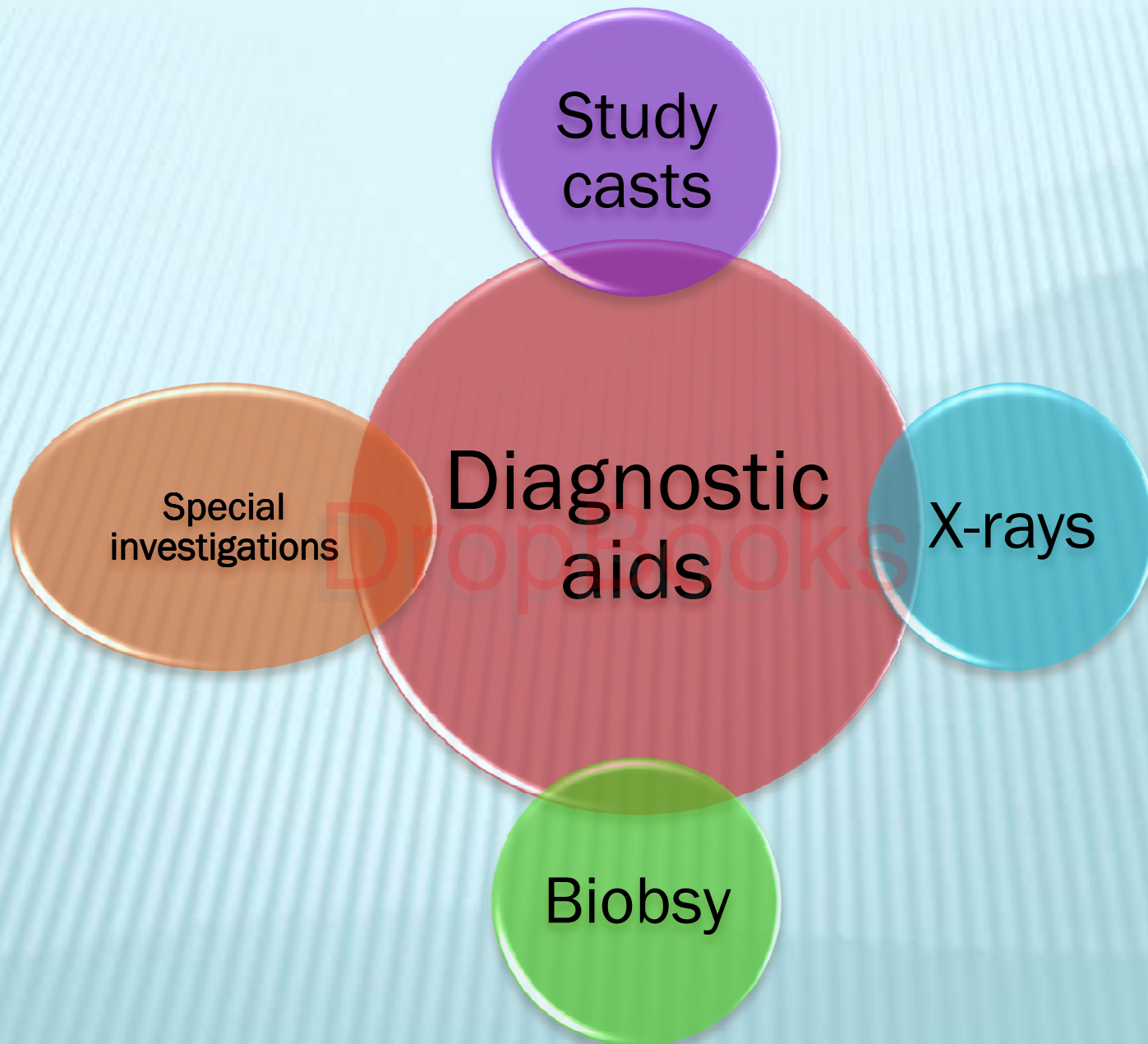
- + It may also occlude with the retromolar pad obliterating the inter-ridge space.
- + The maxillary tuberosity may sometimes be covered with *large pendulous fibrous* tissues which may need surgical correction





Diagnosis and treatment plan

DIAGNOSTIC AIDS



STUDY CASTS

- ✖ They show size, shape of the denture bearing tissues
- ✖ Sulcus depth
- ✖ Position and amount of undercut
- ✖ Artificial teeth selection
- ✖ Inter-arch space on mounted casts

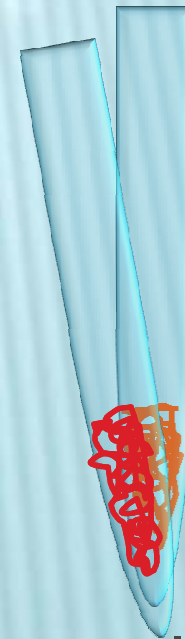
X- RAY

- ✖ Detect retained roots or impacted tooth
- ✖ Inspect bone quality
- ✖ Residual infection or cysts
- ✖ Bony spicules
- ✖ The mucosal thickness along the crest of the residual ridge
- ✖ TMJ study through lateral view



BIOPSY & SPECIAL INVESTIGATIONS

- ✖ It is used to confirm diagnosis of suspected lesions
- ✖ Types
 - + Excisional
 - + Incisional
 - + Smear or swab
 - + Aspiration
- Special investigations such as C.T or ultrasonography

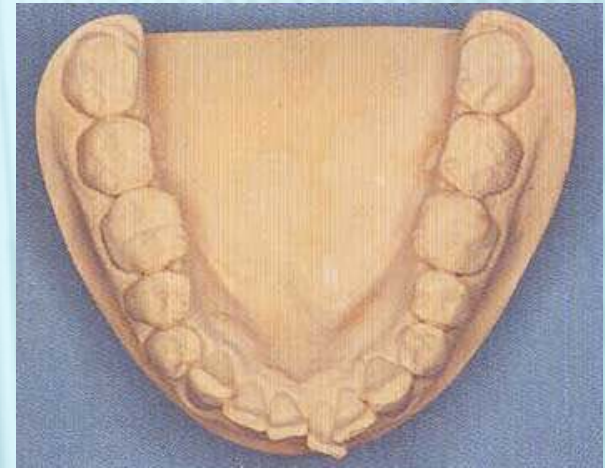
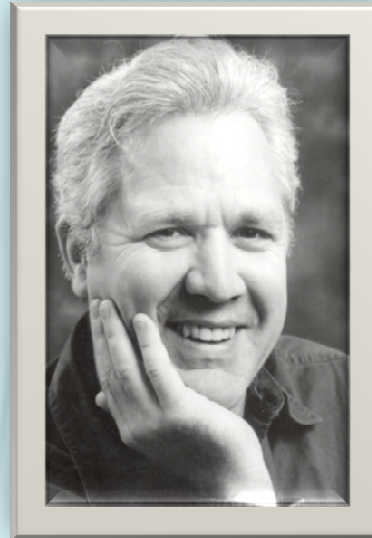


PRE-EXTRACTION RECORDS

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PRE-EXTRACTION RECORDS

- ☐ Diagnostic Casts
- ☐ Photographs
- ☐ Extracted Teeth
- ☐ X- Rays



TREATMENT PLAN

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TREATMENT PLAN

- × All data collected during diagnosis and investigations are studied and analyzed to select the proper mouth preparation and pre-prosthetic measure then obtain the suitable sequence of treatment.

A photograph of a slot canyon with a beam of light shining down on the floor. The walls of the canyon are made of smooth, undulating sandstone, illuminated by a warm, orange-red light. A single, bright beam of light enters from above, creating a vertical column of light that hits the floor, where it glows. The overall atmosphere is mysterious and serene.

Thank you